CATERPILLAR

Service Manual

236 SKID STEER LOADER

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Product: SKID STEER LOADER
Model: 236 SKID STEER LOADER 4YZ
Configuration: 236 246 252 262 Skid Steer Loader 4YZ04000-UP (MACHINE) POWERED BY 3034 Engine

Disassembly and Assembly
236, 246, 248, 252 and 262 Skid Steer Loaders Engine Supplement
Media Number -RENR2868-03 **Publication Date -01/08/2004** **Date Updated -10/08/2004**

i01467471

Air Cleaner - Remove and Install

SMCS - 1051-010

Removal Procedure

236 and 252 Skid Steer Loaders

1. Lower the work tool to the ground.
2. Turn the engine start switch to the OFF position.
3. Open the engine access door.
4. Release the latch on the radiator. Raise the radiator. This will allow access to the air cleaner.

   Note: The 236 and 252 are not equipped with a turbocharger.

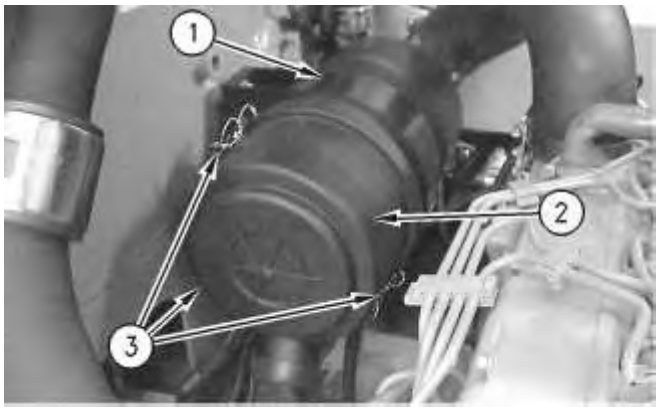

Illustration 1 g00766191

5. Disconnect three clamps (3). Remove air cleaner cover (2) from air cleaner housing (1) .

6. Remove the primary air filter and the secondary air filter from inside air cleaner housing (1) .

Illustration 2 g00595258

7. Loosen two clamps (4). Disconnect hose (5) .

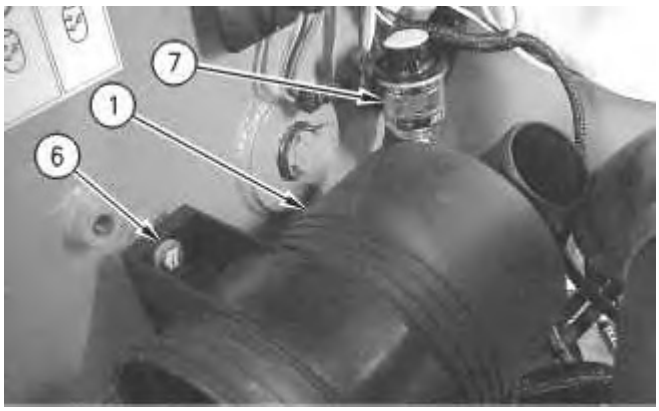

Illustration 3 g00595271

8. Remove two bolts (6). Remove air cleaner housing (1) .
9. Remove service indicator (7) .

Removal Procedure

246, 248 and 262 Skid Steer Loaders

1. Lower the work tool to the ground.
2. Turn the engine start switch to the OFF position.
3. Open the engine access door.

4. Release the latch on the radiator. Raise the radiator. This will allow access to the air cleaner.

   Note: The 246, 248 and 262are equipped with a turbocharger.

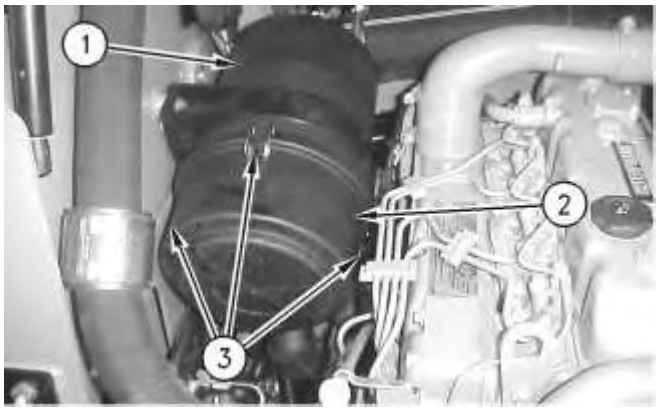

Illustration 4 g00766044

5. Disconnect three clamps (3). Remove air cleaner cover (2) from air cleaner housing (1) .
6. Remove the primary air filter and the secondary air filter from inside air cleaner housing (1) .

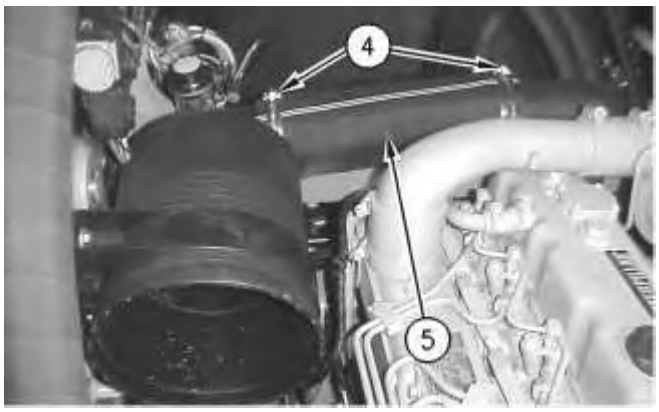

Illustration 5 g00766054

7. Loosen two clamps (4). Disconnect hose (5) .

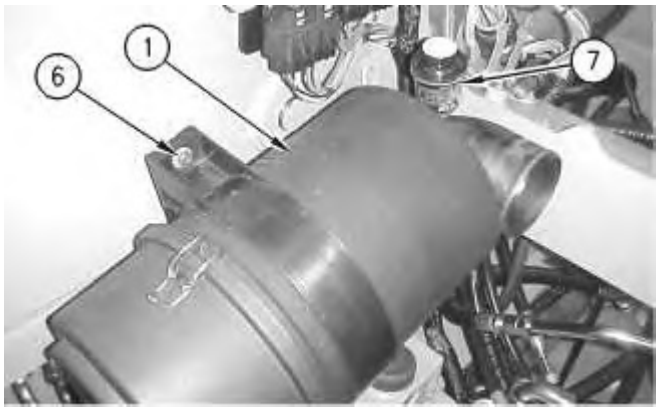

Illustration 6 g00779924

8. Remove two bolts (6). Remove air cleaner housing (1) .
9. Remove service indicator (7) .

Installation Procedure

236 and 252 Skid Steer Loaders

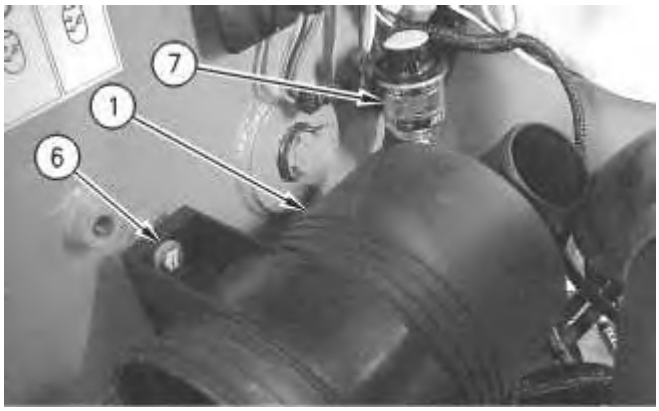

Illustration 7 g00595271

1. Apply **5P-3413** Pipe Sealant to the threads of service indicator (7). Install service indicator (7) into air cleaner housing (1). Tighten the service indicator until the service indicator makes contact with the base of the fitting. Tighten the service indicator by another 1/4 turn.
2. Clean any debris or dirt from air cleaner housing (1) prior to installation.
3. Place air cleaner housing (1) into position. Install two bolts (6). Tighten two bolts (6) to a torque of 18.5 ± 1.5 N·m (13.6 ± 1.1 lb ft).

Illustration 8 g00595258

4. Connect hose (5). Tighten two clamps (4) to a torque of 4.5 ± 1 N·m (40 ± 9 lb in).

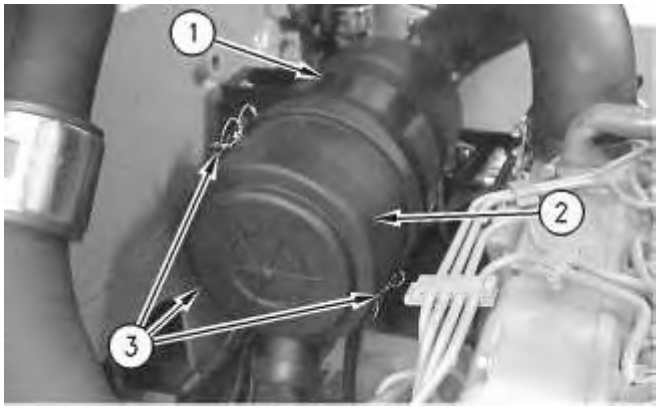

Illustration 9 g00766191

5. Install the primary air filter and the secondary air filter into air cleaner housing (1) .
6. Install air cleaner cover (2) and connect three clamps (3) .
7. Lower the radiator and lock the radiator into position.
8. Close the engine access door.

Installation Procedure

246, 248 and 262 Skid Steer Loaders

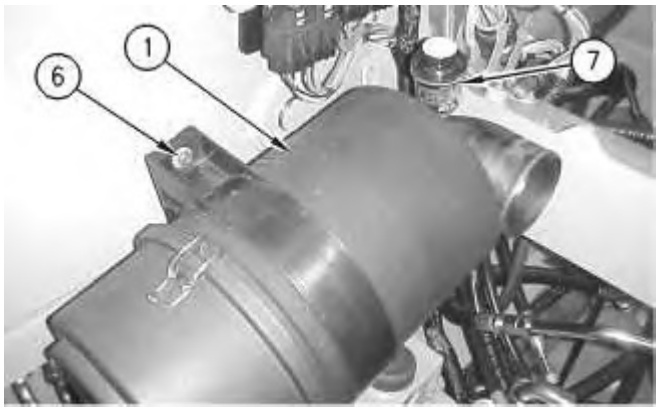

Illustration 10 g00779924

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2. Clean any debris or dirt from air cleaner housing (1) prior to installation.

3. Place air cleaner housing (1) into position. Install two bolts (6). Tighten two bolts (6) to a torque of 18.5 ± 1.5 N·m (13.6 ± 1.1 lb ft).

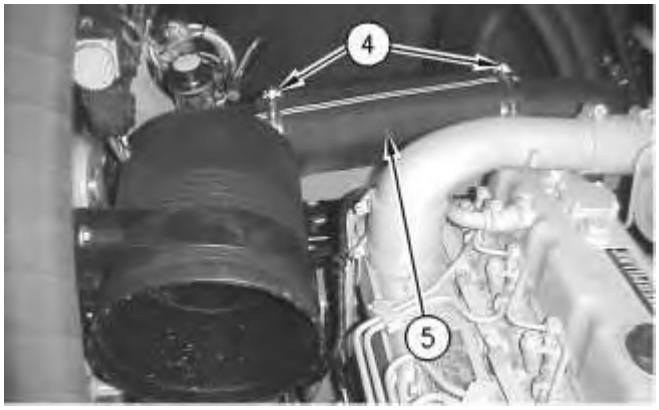

Illustration 11 g00766054

4. Connect hose (5). Tighten two clamps (4) to a torque of 4.5 ± 1 N·m (40 ± 9 lb in).

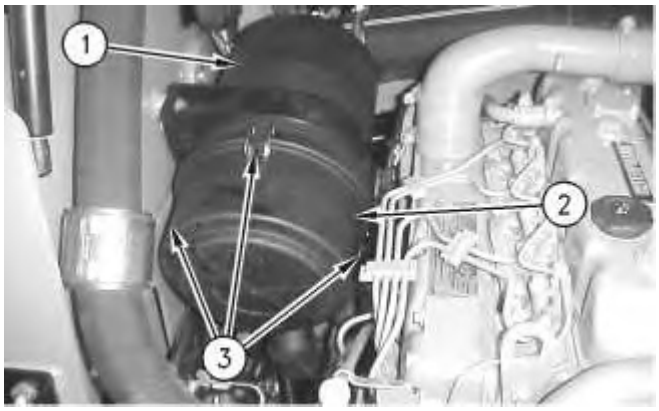

Illustration 12 g00766044

5. Install the primary air filter and the secondary air filter into air cleaner housing (1) .
6. Install air cleaner cover (2) and connect three clamps (3) .
7. Lower the radiator and lock the radiator into position.
8. Close the engine access door.

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Product: SKID STEER LOADER
Model: 236 SKID STEER LOADER 4YZ
Configuration: 236 246 252 262 Skid Steer Loader 4YZ04000-UP (MACHINE) POWERED BY 3034 Engine

Disassembly and Assembly
236, 246, 248, 252 and 262 Skid Steer Loaders Engine Supplement

Media Number -RENR2868-03 **Publication Date -01/08/2004** **Date Updated -10/08/2004**

i01493213

Alternator - Remove and Install

SMCS - 1405-010

Removal Procedure

1. Lower the work tool to the ground.
2. Turn the engine start switch to the OFF position.
3. Open the engine access door.

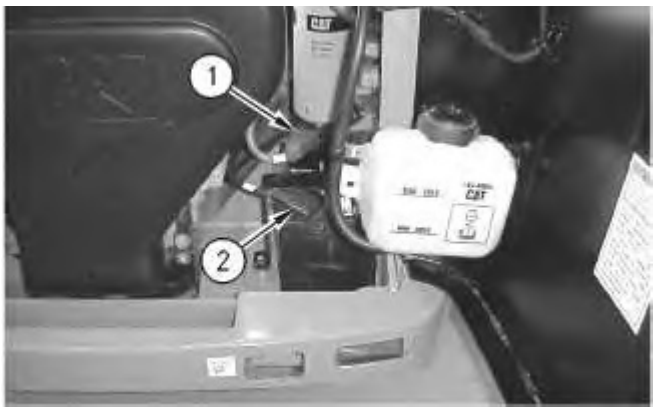

Illustration 1 g00594399

4. Raise the cover on the negative terminal of the battery. Disconnect negative terminal (2) of the battery. Place tape on the negative terminal of the battery.
5. Raise the cover on the positive terminal of the battery. Disconnect positive terminal (1) of the battery. Place tape on the positive terminal of the battery.

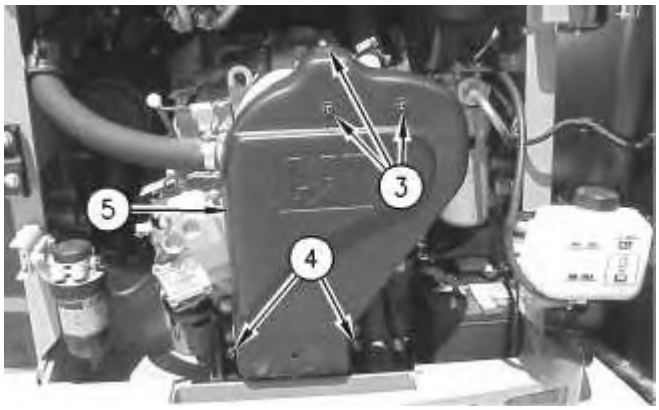

Illustration 2 g00600705

6. Remove three screws (3) and two bolts (4) .
7. Remove cover (5) .

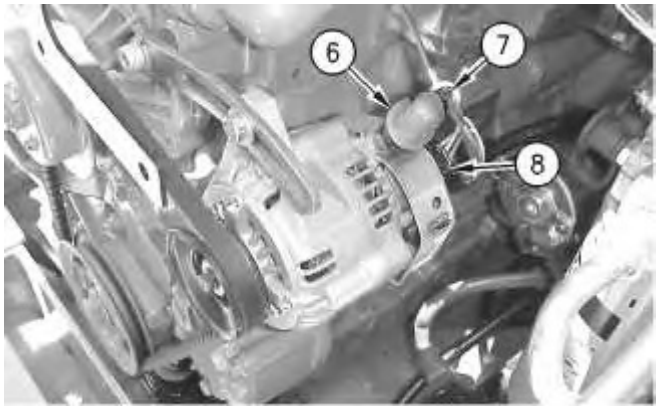

Illustration 3 g00600889

8. Cut tie-wrap (7). Raise rubber boot (6).
9. Disconnect connector (8) .

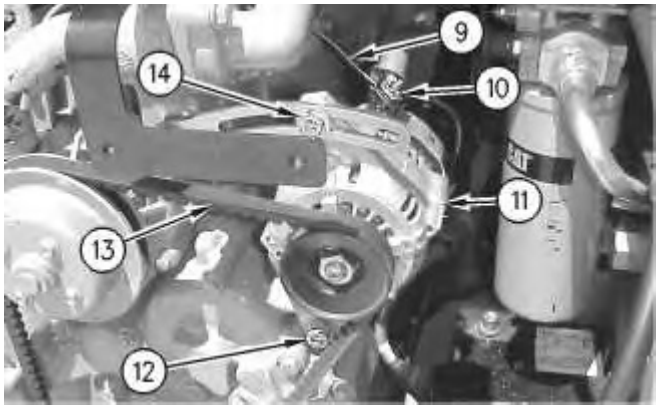

Illustration 4 g00600894

10. Remove nut (10). Disconnect wire (9) .
11. Loosen bolts (12) and (14) .
12. Slide alternator (11) toward the engine.
13. Remove alternator V-belt (13) .
14. Remove bolts (12) and (14) .
15. Remove alternator (11) .

Installation Procedure

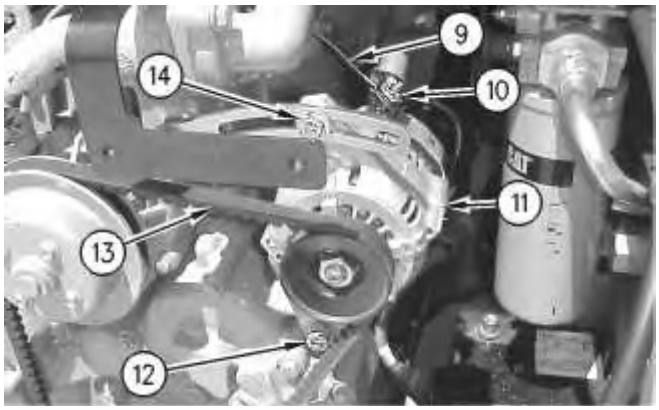

Illustration 5 g00600894

1. Place alternator (11) in position.
2. Install bolts (12) and (14). Do not tighten bolts (12) and (14) at this time.

   Note: When you install the alternator, ensure that the alternator pulley is in alignment with the crankshaft pulley within 2.4 mm (0.09 inch).
3. Install alternator V-belt (13) .
4. Slide alternator (11) away from the engine in order to tighten the alternator V-belt (13) .

   Note: Refer to the Operation and Maintenance Manual, SEBU7468, "Belts - Inspect/adjust/Replace" for the correct procedure.
5. Tighten bolt (14) to a torque of 12 N·m (9 lb ft).
6. Tighten bolt (12) to a torque of 24 N·m (18 lb ft).
7. Connect wire (9). Install nut (10) .

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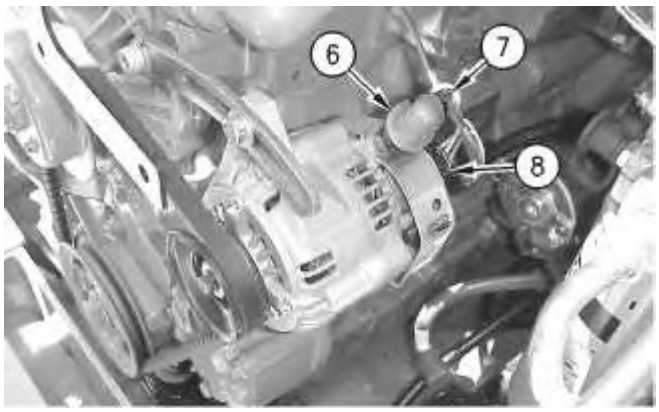

Illustration 6 g00600889

8. Connect connector (8) .
9. Install rubber boot (6). Install tie-wrap (7) .

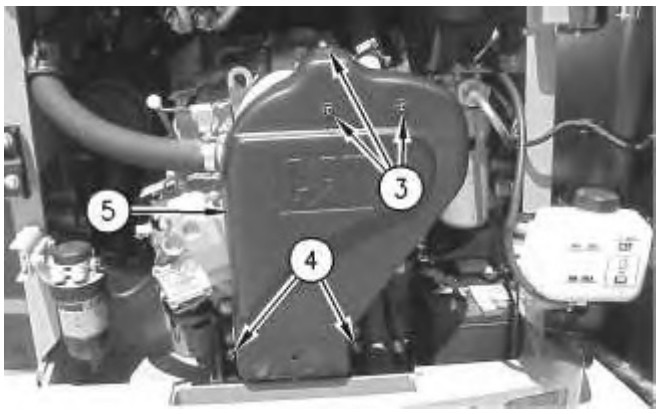

Illustration 7 g00600705

10. Place cover (5) in position.
11. Install two bolts (4) to a torque of 15 ± 3 N·m (11 ± 2 lb ft).
12. Install three screws (3) to a torque of 6 ± 1 N·m (53 ± 9 lb in).

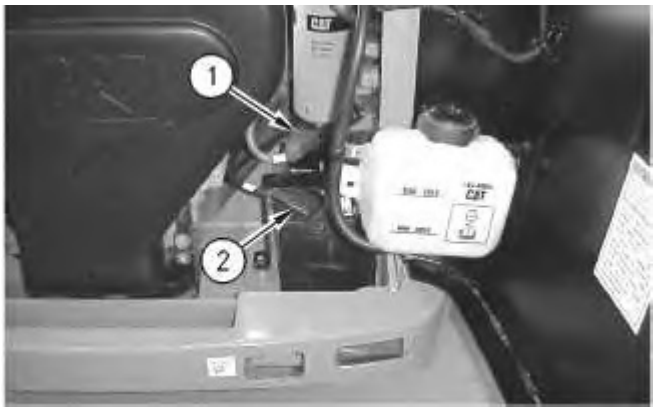

Illustration 8 g00594399

13. Remove the tape from the positive terminal of the battery. Connect the positive terminal (1) of the battery. Lower the cover on the positive terminal of the battery.

14. Remove the tape from the negative terminal of the battery. Connect the negative terminal (2) of the battery. Lower the cover on the negative terminal of the battery.

15. Close the engine access door.

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Product: SKID STEER LOADER
Model: 236 SKID STEER LOADER 4YZ
Configuration: 236 246 252 262 Skid Steer Loader 4YZ04000-UP (MACHINE) POWERED BY 3034 Engine

Disassembly and Assembly
236, 246, 248, 252 and 262 Skid Steer Loaders Engine Supplement
Media Number -RENR2868-03 **Publication Date -01/08/2004** **Date Updated -10/08/2004**

i01463322

Battery and Battery Cable - Separate and Connect

SMCS - 1401-029

Separation Procedure

1. Lower the work tool to the ground.
2. Turn the engine start switch to the OFF position.
3. Open the engine access door.

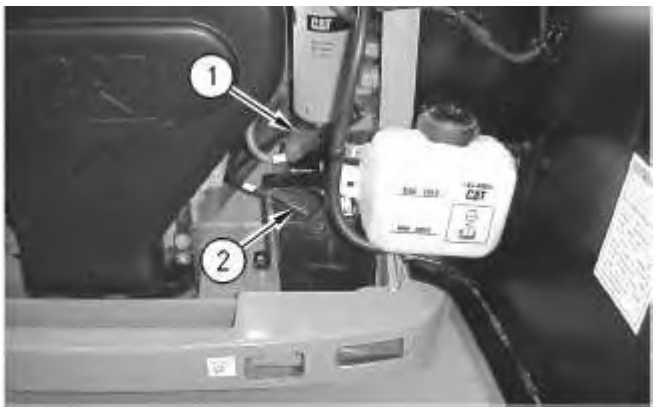

Illustration 1 g00594399

4. Raise the cover on the negative terminal of the battery. Disconnect negative terminal (2) of the battery. Place tape on the negative terminal of the battery.
5. Raise the cover on the positive terminal of the battery. Disconnect positive terminal (1) of the battery. Place tape on the positive terminal of the battery.

Illustration 2 g00795046

6. Remove two bolts (3). Remove bracket (4) on the battery.
7. Remove battery (5) .

Connection Procedure

Illustration 3 g00795046

1. Install battery (5) in position in the machine.

   Note: Both battery terminals must be next to the engine.
2. Install bracket (4). Secure bracket (4) with two bolts (3) .

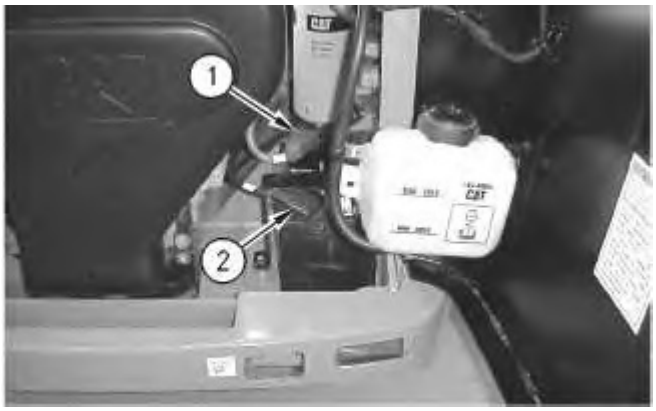

Illustration 4 g00594399

3. Remove the tape from the positive terminal of the battery. Connect the positive terminal (1) of the battery. Lower the cover on the positive terminal of the battery.

4. Remove the tape from the negative terminal of the battery. Connect the negative terminal (2) of the battery. Lower the cover on the negative terminal of the battery.

5. Close the engine access door.

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Product: SKID STEER LOADER
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Configuration: 236 246 252 262 Skid Steer Loader 4YZ04000-UP (MACHINE) POWERED BY 3034 Engine

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Media Number -RENR2868-03 **Publication Date -01/08/2004** **Date Updated -10/08/2004**

i01715326

Cab - Tilt

SMCS - 7301-084

Procedure to Tilt the Cab

Start By:

A. Release the hydraulic system pressure. Refer to Disassembly and Assembly, "Hydraulic System Pressure - Release".

WARNING

Do not go beneath cab unless cab is empty and support lever is engaged.

Failure to follow the instructions or heed the warnings could result in injury or death.

Note: Empty the water tank (if equipped) before you tilt the cab.

Illustration 1 g00601508

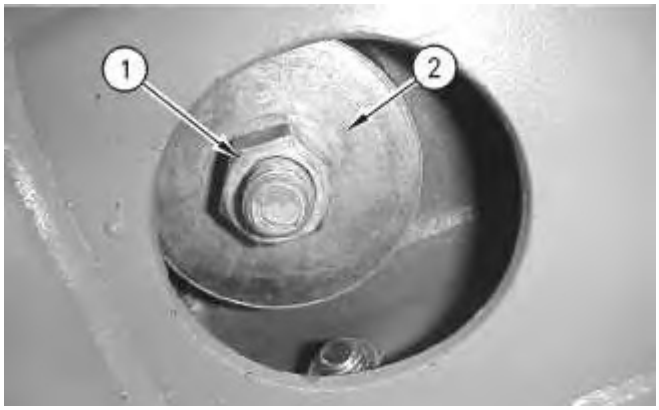

Illustration 2 g00597525

1. Remove nut (1) and large washer (2) from the inside of the cab.

Illustration 3 g00597551

2. Remove bolt (3) .
3. Repeat Steps 1 and 2 on the opposite side of the cab.

Illustration 4 g00597554

4. Raise cab (4) .

Illustration 5 g00601451

Illustration 6 g00563598

5. Engage cab support lever (5) .

Lower Procedure

Illustration 7 g00601456

Illustration 8 g00563674

1. Tilt the cab upward.
2. Disengage cab support lever (5) .

Illustration 9 g00601528

3. Lower cab (4) .

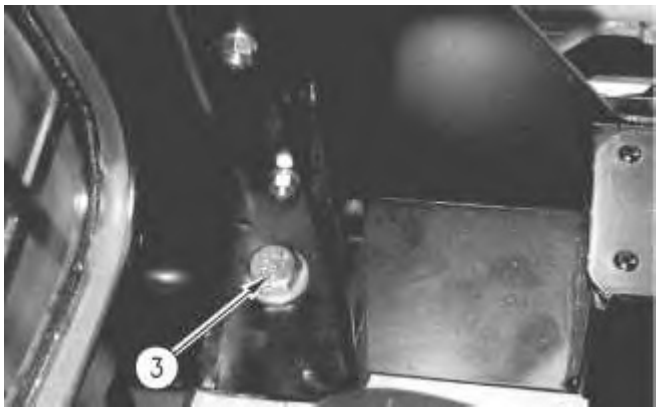

Illustration 10 g00597551

4. Install bolt (3) .

Illustration 11 g00601508

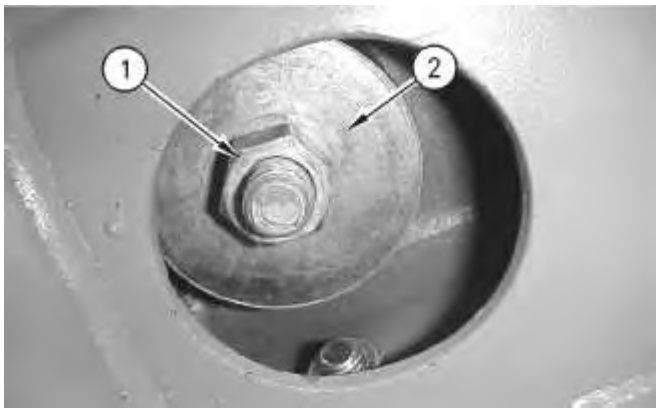

Illustration 12 g00597525

Note: Ensure that the large washer is between the nut and the rubber mounting.

5. Install large washer (2) and nut (1) from the inside of the cab. Tighten the nuts to a torque of 125 ± 10 N·m (92 ± 7 lb ft).

6. Repeat Steps 4 and 5 on the opposite side of the cab.

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Product: SKID STEER LOADER
Model: 236 SKID STEER LOADER 4YZ
Configuration: 236 246 252 262 Skid Steer Loader 4YZ04000-UP (MACHINE) POWERED BY 3034 Engine

Disassembly and Assembly
236, 246, 248, 252 and 262 Skid Steer Loaders Engine Supplement
Media Number -RENR2868-03 **Publication Date -01/08/2004** **Date Updated -10/08/2004**

i01493237

Electric Starting Motor - Remove and Install

SMCS - 1453-010

S/N - 4YZ1-UP

S/N - 5SZ1-UP

S/N - CED1-UP

S/N - FDG1-UP

Removal procedure

WARNING

Accidental machine starting can cause injury or death to personnel working on the machine.

To avoid accidental machine starting, turn the battery disconnect switch to the OFF position and remove the key. If the machine is not equipped with a battery disconnect switch, disconnect the battery cables from the battery and tape the battery clamps.

Place a do not operate tag at the battery disconnect switch location to inform personnel that the machine is being worked on.

1. Lower the work tool to the ground.
2. Turn the engine start switch to the OFF position.
3. Open the engine access door.

4. Release the radiator latch. Raise the radiator.

Illustration 1 g00764870

5. Raise the cover on the negative terminal of the battery. Disconnect negative terminal (1) of the battery. Place tape on the negative terminal of the battery.

6. Raise the cover on the positive terminal of the battery. Disconnect positive terminal (2) of the battery. Place tape on the positive terminal of the battery.

Illustration 2 g00601075

7. Remove nut (3) .

8. Slide boot (4) away from the positive terminal on the electric starting motor.

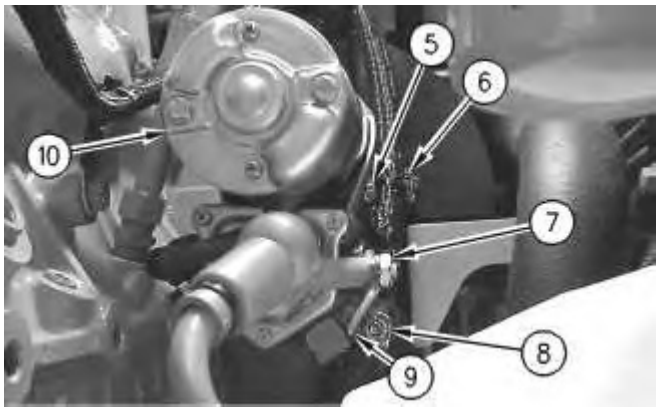

Illustration 3 g00601081

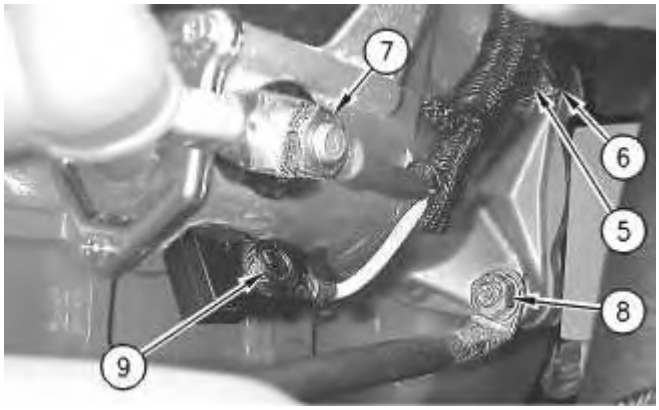

Illustration 4 g00602154

9. Remove nut (7). Disconnect the positive cable from the electric starting motor.
10. Remove nut (8). Disconnect the negative cable from the electric starting motor.
11. Disconnect wire (9) .
12. Support electric starting motor (10) .
13. Remove nut (5) and clip (6) .
14. Remove electric starting motor (10) .

Installation Procedure

WARNING

Accidental machine starting can cause injury or death to personnel working on the machine.

To avoid accidental machine starting, turn the battery disconnect switch to the OFF position and remove the key. If the machine is not equipped with a battery disconnect switch, disconnect the battery cables from the battery and tape the battery clamps.

Place a do not operate tag at the battery disconnect switch location to inform personnel that the machine is being worked on.

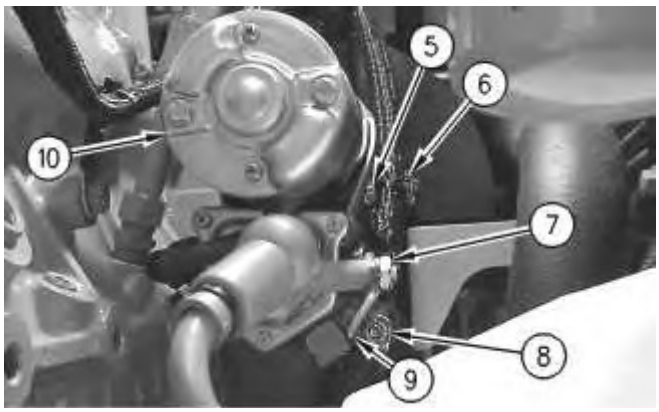

Illustration 5 g00601081

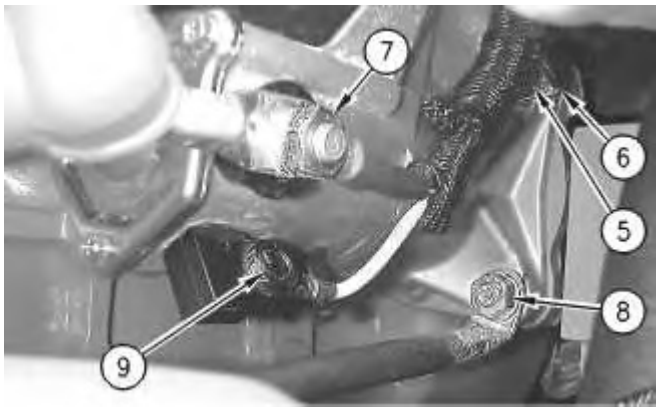

Illustration 6 g00602154

1. Place electric starting motor (10) in position.
2. Install clip (6) and nut (5). Tighten nut (5) to a torque of 50 ± 6 N·m (37 ± 4 lb ft).
3. Connect the negative cable to the electric starting motor and install nut (8). Tighten nut (8) to a torque of 50 ± 6 N·m (37 ± 4 lb ft).
4. Connect wire (9) .
5. Connect the positive cable to the electric starting motor and install nut (7) .

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